

The shell originates in a spiral of two to two and one-half turns, ranging in breadth from 0.8 to 1 mm., thence it extends in a straight line, tangent to the spiral, figure 1, or sometimes slightly reflexed, figure 2. The straight portion of the shell rapidly increases in diameter from 0.38 to 0.40 mm. at the spiral to about 1.5 to 2 mm. at 2 cm. length. Many shells were covered by the nacreous shell substance, some being preserved entire, figure 2, while in others the shell had been dissolved away leaving the suture lines exposed as in figure 1. On breaking away the pearly exterior of forms like figure 2 it was found that the last chamber occupied about one-half the length of the shell. The shell of the outer spires somewhat envelops the inner so that from the outside view the exact form of the spiral cannot be measured, it was found, however, to closely approximate the mathematical curve known as the hyperbolic spiral. That the spiral origin of this shell was not smaller than that of allied genera was demonstrated by grinding cross sections of the shell of *Scaphites Couradi* Morton; the first two turns of its spiral being 1 mm. in breadth. The siphon in *Baculites* is eccentric and was found to lie near the outer margin of the spiral, being easily seen in the fractured spirals.

The species was determined from an examination of the form of the sutures which may be traced from the simple form of that of figure 1, through forms of gradually increasing complexity shown in figures 3, 4, 5, and 6, the latter being the typical suture of the adult of *Baculites compressus* Say. In figure 5, an individual of 6 mm. diameter, the suture of the adult form is already well outlined, the specific distinction, the two deep sinuses on the right hand, being well marked.

The speaker further stated that he had been unable in the literature of the subject to find any reference to this spiral termination of *Baculites*, and believed the observation to be new. That this spiral termination has not been formerly observed was not strange in view of its small size and fragile character, it being probably broken off long before the shell had attained adult size; and it would only be preserved when as in the present instance the shells were preserved in their immature condition. This observation tends to prove that *Baculites* originated from a coiled form, and is not as supposed by some palaeontologists the original form of the *Ammonitidae*, but is rather to be looked upon as an uncoiled form developed from originally coiled parents.

MARCH 17.

Mr. CHARLES MORRIS in the chair.

Twenty-six persons present.

A paper entitled "Catalogue of the Corvidae, Paradiseidae and Oriolidae in the Collection of the Academy of Natural Sciences of Philadelphia," by Witmer Stone, was presented for publication.